

REMARKS

This is a response to the final Office Action mailed November 26, 2008. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

Telephone Conversation With Examiner

Examiner Nunez is thanked for the telephone conversation conducted on January 29, 2009. The finality of the instant rejection was discussed. Examiner Nunez stated that even though this is a first office action after an RCE was filed, the finality of the Office Action is proper and is maintained. Proposed claim amendments were discussed. Cited art was discussed.

Present Status of Patent Application

Claims 8, 10-15, 17, 18, and 21-31 are pending in the present application. Specifically, claims 1-7, 9, 16, 19 and 20 have been canceled without prejudice, waiver, or disclaimer; claims 8, 10-15, 17, and 18 have been currently amended without introduction of new matter; and claims 21-31 are new claims that are being submitted without introduction of new material. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

Claim Rejections under 35 U.S.C. §103

I. Statement of the Rejection

Claims 1-4, 6-10, 13-15, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaidyanathan et al. (6467081) in view of Gasser (6636250).

Response to the Rejection

In light of the details provided in pages 2-7 of the Office action, Applicants recognize that the statement of the rejection (reproduced above) contains a typographical error. Accordingly, Applicants interpret the rejection as being applied to: “*Claims 1-4, 6-10, 13-15, and 18-20.*” A detailed response for each of the rejected claims is provided below.

Claims 1-4, 6 and 7

Applicants have opted to cancel claims 1-4, 6 and 7 and respectfully submit that the rejection of these claims has been rendered moot as a result of the cancellation.

Claim 8

Applicants have opted to currently amend claim 8 in the interests of moving forward prosecution in the case. The amendment is intended to clarify that the claim is directed at using parent-child data tip windows for displaying and/or manipulating data values related to a variable contained in a line of software code.

Towards this end, the claim now recites in pertinent part: “*determining that a cursor is positioned to point at the object on the computer screen, wherein the object represents a variable...*” and further recites various method steps associated with displaying data sub-items corresponding to the “variable” (incorporating terms such as “data values”, “data sub-items,” and “variable values”).

In contrast to this data-oriented approach (using data tip windows), the cited reference of Vaidyanathan is directed at an automatic help system that provides drop down boxes containing reference information (function type, class name, and parameter list etc.) pertinent to an “identifier” that is included in the source code. This aspect is disclosed in pertinent part in Vaidyanathan’s col. 8, lines 22-26 which describes the tool tip box 308 shown in his Fig. 3(b).

Furthermore, in his col. 10, lines 24-31, Vaidyanathan points out the advantages of his help system in the following manner: “*the invention provides for advantages not found within the prior art. As the source code is written (developed) by a computer programmer via the editor, the automatic help module is invoked upon the occurrence of an event to provide reference information for an identifier. Unlike prior art systems and methods, the developer does not have to take focus away from the editor to consult paper documentation, on-line documentation, other source files, or other tool windows containing class hierarchies and the like.*” One of ordinary skill in the art can appreciate the difference between Vaidyanathan’s help system and the data tip windows of Applicants’ claim 8, more so when Vaidyanathan teaches away from “*other tool windows containing class hierarchies and the like.*” It may be noted that Applicants’ claim 8 is

directed to multiple data tip windows that are displayed in a parent-child relationship “*overlying at least a portion of the listing of the program code.*” The advantages and convenience provided by this type of compact display format over conventional multiple window displays can be readily appreciated by one of ordinary skill in the art.

Attention is now drawn to Patent No. US 6,305,008 (incorporated by reference in US 6,467,081) that is cited in 6,467,081 col. 8, lines 50-55 vis-à-vis drop down box 324. Specifically, attention is drawn to the Abstract section of 6,305,008 which discloses an “*automatic statement completion module*” that is “*operative to display a set of valid entries in response to a pre-determined event.*” A portion of the Summary section (column 2, lines 26-40) of US 6,305,008 is reproduced below for easy reference:

... The completion module then displays context-sensitive information allowing the developer to rapidly complete the expression.

Thus, embodiments of the invention provide for advantages not found in previous systems. While a programmer is developing or writing source code for a program, in one embodiment the completion module is invoked as the programmer is writing the code. A list of potential completion candidates is presented to the developer, who can then pick the desired candidate or continue typing. The list of candidates is automatically supplied thereby freeing the developer from having to consult printed or on-line documentation, class hierarchies or other source code files. In this manner, development of computer programs is made easier and more productive as compared to previous systems.

As can be appreciated from the description above (as well as the description provided in 6,467,081), the functionality and implementation of Vaidyanathan’s tool tip box 308 and/or drop down box 324 are distinctly different from that of Applicants’ data tip windows.

Notwithstanding this fact, the Office action alleges in page 4 that that Applicants’ “*...variable value*” is disclosed in Vaidyanathan’s “*Column 4 lines 10-16 for example*” and that Applicants’ “*data sub-items*” is disclosed in Vaidyanathan’s “*figure 3c for example.*”

Applicants respectfully traverse this allegation and submit that Vaidyanathan’s “*Column 4 lines 10-16,*” which pertains to a parser 215 that “*converts source code 210 into executable code*” is not pertinent to Applicants’ “*variable value*” as recited in claim 8. Furthermore, Vaidyanathan’s “*figure 3c*” shows a “drop down box 324” and a “tool tip box 330.” The “drop down box 324 is displayed by an automatic statement completion module” (col. 8, lines 50-53).

Various aspects of the automatic statement completion module have been described above (Patent No. US 6,305,008) and an explanation provided as to how this form of help information is different from Applicants' data tip windows and data sub-items.

Applicants' parent-child data tip windows have been described in various parts of their original specification. For example, Applicants' FIG. 4 shows a parent data tip window 310 and a child data tip window 430. Parent data tip window 310 is described in pertinent part in paragraph [0042] as showing "*content of variable 'c'.*" (i.e. components x1, x2 and x3 along with their data values); while child data tip window 430 is described in pertinent part in paragraph [0045] as showing "*data members of the original expression and their values*" (i.e. x1, x2, x3, x5, x6, x7, x8, x9, y1, z1, j1, k1, m1, and m2 together with individual data values for each of these data members). Applicants have currently amended claim 8 to bring forth these aspects in more detail so as to indicate the clear contrast to the cited references.

In summary, Applicants respectfully submit that the cited art of Vaidyanathan and Gasser, individually or combinedly, fail to teach or suggest all aspects of claim 8. Consequently, Applicants respectfully submit that the claim (at least in amended form) is allowable over the cited references and hereby request withdrawal of the rejection followed by allowance of the claim.

Claim 9

Applicants have opted to cancel 9 and respectfully submit that the rejection of this claim has been rendered moot as a result of the cancellation.

Claim 10

Applicants respectfully submit that claim 10 is allowable for several reasons. One amongst these several reasons arises from the fact that claim 10 is directly dependent on allowable claim 8 and is consequently allowable by law due to claim dependency. Applicants respectfully request withdrawal of the rejection followed by allowance of the claim.

Claim 13

In contrast to claim 8, which is directed to a method of displaying related data sub-items, claim 13 is directed to a system for displaying data tips. Consequently, the scope of these two

claims is distinct and different from one another. However, several remarks made above in response to the rejection of claim 8, are equally pertinent to the rejection of claim 13 as well. In the interests of brevity these remarks will not be repeated herein. In short, Applicants respectfully submit that claim 13 (at least in amended form) is allowable over the cited references and hereby request withdrawal of the rejection followed by allowance of the claim.

Claims 14 and 15

Applicants respectfully submit that claims 14 and 15 are allowable for several reasons. One amongst these several reasons arises from the fact that each of these claims is directly dependent on allowable claim 13 and are therefore allowable by law due to claim dependency. Consequently, Applicants respectfully request withdrawal of the rejection followed by allowance of these claims.

Claim 18

In contrast to claim 8, which is directed to a method of displaying related data sub-items, claim 18 is directed to a machine readable storage medium system for storing instructions. Consequently, the scope of these two claims is distinct and different from one another. However, several remarks made above in response to the rejection of claim 8, are equally pertinent to the rejection of claim 18 as well. In the interests of brevity these remarks will not be repeated herein. In short, Applicants respectfully submit that claim 18 (at least in amended form) is allowable over the cited references and hereby request withdrawal of the rejection followed by allowance of the claim.

Claims 19 and 20

Applicants have opted to cancel claims 19 and 20 and respectfully submit that the rejection of these claims have been rendered moot as a result of the cancellation.

II. Statement of the Rejection

Claims 5, 11, 12, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaidyanathan et al. in view of Gasser, and further in view of Microsoft Tiptoe Through (applicant provided NPL document, Microsoft, Tiptoe Through the ToolTips With our All-

Encompassing ToolTip Programmer's Guide).

Response to the Rejection

Claim 5

Applicants have opted to cancel claim 5 and respectfully submit that the rejection of this claim has been rendered moot as a result of the cancellation.

Claims 11, 12, and 17

Applicants respectfully submit that claims 11, 12, and 17 are allowable for several reasons. One amongst these several reasons arises from the fact that these claims are directly dependent on allowable claims (8 and 13). Consequently, Applicants respectfully request withdrawal of the rejection followed by allowance of these dependent claims.

Remarks pertaining to new claims 21-31

Applicants respectfully submit that new claims 21-31 are allowable over the cited references. The subject matter of these claims is taught in various portions of Applicants' specification. Applicants point out certain segments of Applicants' specification and drawings merely for purposes of understanding some of these new claims. However, it must be understood that this identification is being carried out solely to assist prosecution and that the claims are in no way limited to the cited information.

Claim 21: FIG. 3, data tip window 310, "*at least one individual data element*" = x1 for example, with corresponding data value "50"; FIG. 4, child data tip window 430, "*additional individual data elements*" with "*data values*" i.e. x2=2, x3=3, y1=4, j1=110, for example; and

Claims 23-27: FIG. 8, window 810.

Cited Art Made of Record

The cited art made of record has been considered, but is not believed to affect the patentability of the presently pending claims.

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CONCLUSION

Applicants respectfully submit that pending claims 8, 10-15, 17, 18, and 21-31 are allowable. Favorable reconsideration and allowance of the present application and all pending claims are hereby requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned representative.

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